FOREIGN AGRICULTURE

Sifting rice, Iran

Iran Is Market for U.S. Livestock

May 24, 1976

Foreign
Agricultural
Service
U.S. DEPARTMENT
OF AGRICULTURE

FOREIGN AGRICULTURE

Vol. XIV • No. 21 • May 24, 1976

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This week's cover:

Worker sifting rice at a distribution point in northern Iran, the country's major rice producing area. Iran's consumption of rice has been expanding, and U.S. exports of rice to Iran during 1975 surged 58 percent ahead of the 1974 level to reach a value of $166 million. However, other U.S. farm product exports to Iran were smaller in 1975 than in 1974. See report beginning this page.

Earl L. Butz, Secretary of Agriculture

Richard E. Bell, Assistant Secretary for International Affairs and Commodity Programs

David L. Hume, Administrator, Foreign Agricultural Service

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The Secretary of Agriculture has determined that publication of this periodical is necessary in the transaction of public business required by law of this Department. Use of funds for printing *Foreign Agriculture* has been approved by the Director, Office of Management and Budget through June 30, 1979. Yearly subscription rate: $34.35 domestic, $42.95 foreign; single copies 70 cents. Order from Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. **Contents of this magazine may be reprinted freely. Use of commercial and trade names does not imply approval or constitute endorsement by USDA or Foreign Agricultural Service.**

Pickup seen for 1976/77

U.S. Farm Sales to Iran Have Headed Downward

By MICHAEL E. KURTZIG
Foreign Demand and Competition Division
Economic Research Service

IRAN, 1974's wonder market for U.S. farm products, has let up on its buying recently, precipitating a trade decline that lowered U.S. farm sales there by a fifth in 1975 and continued in early 1976. However, a trade pickup appears in the making for late 1976 and early 1977.

The 1975 turnabout in what had been viewed as a prospective billion-dollar farm market is seen as a corrective reaction to the country's recent spending spree and economic slowdown. It also was a response to Iran's unusually good harvest of 1975, which helped meet the rising domestic demand for food products.

These and other negative factors like the country's massive port tieup combined to reduce U.S. farm sales to Iran by 21 percent last year to $423 million. Among the top exports, wheat fell to second place as its shipments plunged 47 percent to $138 million, while rice moved into the No. 1 spot as a result of a 58-percent sales gain to $166 million. Cottonseed oil exports also were up sharply, nearly tripling their 1974 level. Otherwise, the percentage changes were on the downside: Corn fell 88 percent in value; barley, 74 percent; tallow, 60 percent; and soybean oil, 46 percent.

Much of the sales decline occurred in the final 6 months of 1975, when the value of U.S. exports slipped to $81 million ,or one-fifth the figure for the same period of 1974. Among the major exports in that period, shipments of wheat fell to 122,000 tons from 1.1 million in the last 6 months of 1974; those of rice were down to 73,413 tons from 169,000; and those of corn were off to 25,376 tons from 102,747.

While sales to Iran have continued slow through the first part of 1976, chances are good for improvement later this year. Iran's purchases in the year ending next March 20, for instance, are forecast to rise strongly, with the following imports possible: Wheat, 1.3 million tons, largely from the United States; rice, corn, barley, and soybean oil, 250,000 tons each; sorghum, 200,000 tons; and cottonseed oil, 15,000 tons. For all products, the United States is expected to be the country's major supplier.

The country could conceivably even approach its 1974 level of buying should import demand pick up further. Flush with added wealth from its increased oil revenues and at the height of economic expansion, Iran that year quintupled its 1973 takings of U.S. farm products to $534 million. So fast was the growth in farm and industrial imports, in fact, that Iran by 1975 was faced with a flood of goods into the country.

The heavy imports, in turn, overtaxed the country's infrastructure, particularly at the ports, where a severe backup stretched offloading time to around 4-6 months. Thus, at the end of 1975, some 395 ships with a total cargo of nearly 3 million tons were awaiting berths at Iran's Persian Gulf ports, while other ships were moored at the ports of nearby countries awaiting entrance into Iran.

The Government tackled the port tieup by ordering round-the-clock, 7-day work weeks to clear the ports by this summer. However, chances of this being accomplished are slight—some experts have stated that Iran will be lucky to clear the ports within 2 years.

AT ABOUT the same time this backup had begun to hamstring Iranian trade, an economic slowdown—albeit with results that most other nations would welcome—began to pose limits on previously unrestrained spending. The country's real economic growth rate, for instance, fell to 17 percent in 1975, or half the 1974 rate and a 60

Left, a sugarcane farm in Iran. Lower left, merchant selling oranges in Tehran's central fruit and vegetable market, which is to be modernized. Below, threshing soybeans in northeast Iran. A new crop planted on former cotton land, soybeans will help Iran make up part of its vegetable oil deficit, but import demand also will continue strong.

percent drop from 1973's. In addition, Iran's foreign reserves have fallen from $8.6 billion in April 1975 to $6.7 billion in March 1976 and the country anticipates a $2.4 billion deficit in its budget.

These changes come as a result of the sharp decline in Iran's oil revenues last year—down from an anticipated $22 billion to a realized $19 billion—in the face of still-heavy Government spending.

Iran also has been able to meet more of its food needs domestically as a result of record crops in 1975, whereas its 1974 import surge was in part to compensate for the drought-reduced harvests of 1974. Wheat production in 1975 hit a new high of 4.9 million tons, exceeding the previous record crop of 4.4 million tons in 1968. Barley production climbed 19 percent over 1974's to 950,000 tons. Corn output tripled to 50,000 tons, and rice production increased by around 7 percent to 750,000 tons.

Soybeans—a new crop to Iran with high potential—doubled their 1974 output, reaching 70,000 tons and boosting total oilseed production to 96,000 tons from 88,000 in 1974. (Consumption of vegetable oils during 1974/75 is estimated at 268,000 tons compared with 218,000 in 1973/74.)

This good showing is reflected in USDA's indexes of agricultural production in Iran—up to 167 in 1975 from 146 in 1974 (1961-65 = 100). In addition, per capita agricultural output rose to 116 from 105 in 1974, while the index of population stood at 144 in 1975.

The trade reversal of last year should not be considered a long-term trend in U.S. shipments to Iran. First, Iran's agriculture is subject to wide production fluctuations, since much of the grain area is rainfed. With domestic

U.S. AGRICULTURAL EXPORTS TO IRAN, CALENDAR 1974 AND 1975

Commodity	1974		1975	
	Quantity	Value	Quantity	Value
	Metric tons	*1,000 dollars*	*Metric tons*	*1,000 dollars*
Wheat	1,397,563	257,477	726,381	137,589
Rice	189,510	104,738	366,170	165,798
Barley	59,357	9,395	16,265	2,476
Corn	125,761	71,377	16,831	8,195
Tallow, inedible	30,755	13,194	14,966	5,215
Soybean oil, crude	154,749	104,353	67,912	56,231
Cottonseed oil, once refined	10,986	5,613	16,078	16,621
Total agricultural	—	534,195	—	423,171
Total exports (excluding military)	—	1,729,615	—	3,226,540

demand up so strongly, it is probable that import demand fluctuations may be even more severe than in the past, when wheat imports varied by as much as a million tons a year.

Second, while reduced oil revenues have forced Iran to lower its sights somewhat, the country still has ambitious plans for livestock industry expansion and diet improvement that should foster growth in U.S. farm exports (see following article).

Meanwhile, the rapid increase in per capita disposable income, coupled with improvements in Iranian dietary habits, has already caused a rapid increase in per capita consumption of food in general and protein-rich products in particular. For example, the average per capita consumption of poultry meat increased from 3.7 pounds in 1969/70 to 5.1 pounds in 1974/75. Similarly, the average per capita meat consumption rose from about 28.7 pounds in 1972 to 37.5 pounds in 1974.

In coming years, demand for farm products is seen rising 8-10 percent a year, with the following annual consumption gains: Meat, 10.5 percent; rice, about 15 percent; wheat, 3.3 percent; and vegetable oils, 8-10 percent. Contributing to the expanding demand is a rapid population growth rate of around 3 percent yearly—one that is expected to decline, however, as family planning programs begin to have an impact and rising levels of living alter traditional views about family size.

To meet these expanded needs, the Government of Iran is moving ahead with the establishment of vertically integrated agricultural enterprises. The objective of these agribusiness ventures is to make optimum use of limited water resources and thereby increase farm output. One such project in the Khuzistan Province produces mainly sugarcane and sugarbeets, alfalfa, corn, and wheat. Last year, this area yielded 45 tons per hectare of sugarbeets, compared with a 15-ton average produced with traditional farming methods nearby.

Other projects also seek to make better use of other agricultural inputs, fertilizer, and pesticides. One such recent innovation is the concept of "agricultural poles" that would concentrate priority agricultural development in areas with good water and soil potential. Some 20 "pole" areas have been identified thus far with development underway in seven of them.

All told, Iran plans to put 12 percent of its cropland into consolidated cooperative enterprises, 8 percent into large agribusiness operations, and 50 percent into individual farms served to some extent by cooperatives. It hopes, in this way, to boost agricultural self-sufficiency to 80 percent in the near term.

However, a 3 percent population growth rate and an 8-10 percent yearly gain in demand for food seem likely to push realization of this goal well into the future. For instance, Iran's production target for soybeans is 300,000 tons by 1979/80, or more than four times current levels. But even if this is achieved, the country is expected to import about 250,000 tons of vegetable oils in 1980.

(Also, owing to the decline in petroleum revenues, Iran is not likely to achieve goals targeted for the current 1974-78 plan until the early 1980's during its sixth 5-year plan.)

Iran: Market for U.S. Livestock

By NICK HAVAS
Foreign Market Development, Livestock and Livestock Products
Foreign Agricultural Service

WHILE its total imports of U.S. farm products have fallen off their rapid pace of the past 2 years, Iran continues to boost purchases of one category—U.S. livestock and livestock products.

This sales expansion, fueled by record shipments of breeding cattle to Iran in the past year, already has led to a near doubling of trade from $7 million to $13 million between calendar 1973 and 1975. Further growth is seen in view of Iran's drive to upgrade its livestock herd and improve diets in the shortest time possible.

Iran has been able to invest heavily in livestock because of the quadrupling of prices for petroleum since 1973. That gain contributed to a more than doubling of Iran's gross national product since 1973/74—from $26 billion to an estimated $54 billion in 1975/76—and to ambitious plans for improving national incomes and diets.

It has been projected that Iran's per capita production of protein will exceed 24 grams per day by 1995, or nearly 2½ times the rate estimated for 1976. This increase is expected to come from a threefold jump in production of milk and poultry meats and a twofold increase in other protein sources such as red meat, eggs, and fish.

To reach these production goals, Iran will have to implement a 20-year development program at a projected cost of $85 billion. Even with such a program, demand at the end of the 20-year period (1995) is still expected to outdistance production of all animal products except eggs. A recent study done for the Government of Iran, for instance, projects the annual shortfall in certain commodities to be 20 percent (2 million tons) for milk; 56 percent (800,000 tons) for sheep and goat meat; 46 percent (300,000 tons) for beef and other red meats; and 50 percent (58,000 tons) for fish. Imports are seen making up the expected deficits.

It is unlikely that these optimistic projections will be reached, although Iran should indeed be an excellent market for livestock and livestock products.

Iran's development plans have a number of areas of interest to U.S. exporters. The most significant of these appear to be in dairy, beef, mutton, and poultry production.

Dairy. Iran has already begun its dairy improvement program by importing substantial numbers of high-performance dairy cattle, primarily Holstein-Friesian. Iran's imports of dairy cattle from the United States increased by more than 5,000 head in calendar 1975 over the 1974 level of 750 head. In value, U.S. dairy cattle sales to Iran in 1975 exceeded $6 million, compared with about $800,000 and $400,000 during the 2 previous years.

To reach the projected threefold increase in milk production by 1995, the 20-year development plan calls for imports of 210,000 dairy cows by 1995. The plan recommends that Iran import

10,000 dairy cows in 1976, 20,000 each year thereafter through 1985, plus an additional 20,000 during 1986-95.

U.S. suppliers can compete for this market because the Iranian Government pays the full transportation costs, including air transportation. As long as this subsidy is in effect, U.S. suppliers should make every effort to capitalize on it, including efforts to ensure that only animals with high performance potential are shipped to Iran.

Also, once the animals arrive at their ultimate destination, every effort should be made by the importers to ensure that the animals receive proper management, including health, nutrition, and other favorable animal husbandry practices. Failure to do so will cause dissatisfaction among the buyers and could adversely affect future U.S. sales.

In addition to dairy cattle, opportunities exist for selling high-performance bulls and frozen semen. These are needed to help maintain the genetic superiority of offspring of the imported cattle and to upgrade the offspring of the native breed stock.

Meat. Until about 10 years ago, beef in Iran was considered to be "poor man's" food. Even today, Government programs and per capita consumption favor lamb and mutton, with the Government subsidizing these meats by 50 cents per pound. Although beef currently has no subsidy, it may receive one in the near future.

"Further growth is seen in view of Iran's drive to upgrade its livestock herd and improve diets. . . ."

Because of the subsidy and other price-control mechanisms at the farm level, which the Departments of Agriculture and Commerce administer, sheep meat prices are the same now as they were 2 years ago. Beef prices, on the other hand, are 20 percent higher.

Per capita meat consumption during 1975 averaged about 7 pounds for poultry, 9 pounds for beef, and 28 pounds for sheep. All three are expected to double in 20 years.

Beef consumption is rising in response to increased acceptance by the local population and a continuing influx of business people with established beef consumption habits. This growing demand will be met from imports and local production, the latter using U.S.-type feedlot operations.

One such feedlot is already in operation about 60 miles north of Tehran. It holds over 6,000 native male cattle, which are fed high concentrate feed. The feeding period ranges from 60 to 180 days, and finished animals are sold live since there are no processing facilities at the farm.

Additional feedlot operations are being built. These will have their own feed mills and slaughtering and freezer plants and will handle sheep as well as cattle.

There are two such feedlot operations currently in the late stages of development. One, near Tehran, is totally a commercial venture, although one of the partners is a Government official. The other, near Shiraz and nearly 600 miles from Tehran, is completely Government financed.

The plant near Tehran will have a holding capacity of 120,000 sheep and 30,000 cattle per cycle and plans three turnovers per year. The complex has its own feedmill with a capacity of 60 tons per hour; sorting, dipping, and vaccinating facilities; and a modern slaughterhouse for a daily kill of 1,500 sheep and 300 cattle per 8-hour shift. It also has a 500-ton freezer capacity and chilled storage for 3 days' kill. This plant is expected to be in operation by mid- or late summer 1976.

According to various sources, other similar feedlot complexes are going to be built. All of the animals in these feedlots are expected to be trucked in from local producers.

The plant near Shiraz, the FARS Meat Complex, is in the late stages of development. This 750-acre complex will have a feedmill with annual capacity of 360,000 tons; slaughterhouse capacity for 24,000 tons of mutton annually; pens and other facilities to house and feed up to 500,000 sheep; a 3,000-ton-capacity meat chiller; housing for 1,500 employees and their families; rendering facilities; and a plant for processing hides and skins.

Animals for slaughter at the FARS complex will be purchased at the 30 or so rural substations located within a 300-mile radius of the plant. The sheep will be slaughtered as soon as they are received. Those sheep that are housed and fed at the complex will be there for breeding purposes and to supply animals for slaughter when shipments from the outside are insufficient to meet desired capacity.

Present plans call for 3 pounds of feed per animal per day, of which 10 percent will be corn, whether the sheep are fed for breeding or fattening. At that rate, corn consumption, even at 60 percent capacity, would total about 1,000 bushels per day.

The Government's plan calls for eight to nine such complexes in the next 3-5 years to be located in different parts of Iran.

The primary purpose of the FARS complex and others like it is to provide mutton for domestic consumption, although they will handle cattle as well. All mutton production from this and future similiar complexes will be sold to the Iranian meat organization and shipped largely to Tehran. The price will be set by the Iranian Government.

"Until about 10 years ago, beef in Iran was considered to be 'poor man's' food."

In addition to increased production of red meats, the 20-year development plan calls for extensive growth in poultry meat and egg production.

Feed. As expansion in dairy herds, feedlots, and broiler and layer operations is implemented, the feed requirement in Iran will grow significantly. It is unlikely that Iran can meet this increased feed need from local production. In fact, the 20-year plan suggests that Iran will have to import nearly 850,000 tons of corn a year by the early 1980's. Soybean imports are also foreseen, with such purchases estimated at over 60,000 tons annually during 1976-80, increasing to 140,000 tons a year during 1981-85 and over 200,000 tons per year thereafter.

Consumer-ready products. These are currently imported only in limited quantities, owing in large part to high import duties of 100 percent or more on most items. Iran's Under Secretary of Commerce said over a year ago that by March 1975 these items would be liberalized, but so far this has not occurred. Discussions are still held from time to time without decision.

USSR Strives for Increased Hog Production Efficiency

By ROBERT R. ANLAUF
Assistant U.S. Agricultural Attaché
Moscow

THE SOVIET UNION in recent years has begun to develop large-scale hog complexes to improve feeding efficiency, improve labor productivity in hog production, and maximize returns on pork output.

Production in these complexes is carried out in completely enclosed structures, utilizing a combination of modern feeding techniques and scientifically developed breeding practices.

Twelve such complexes are in the beginning or operating stage in various areas of the Soviet Union. Each complex is designed to produce 108,000 head of hogs per year at an average live weight of approximately 230 pounds.

A manure-based fertilizer byproduct is also obtained, but elaborate and costly machinery is necessary for chemical processing and drying of the manure to meet health and sanitary standards.

While the primary Soviet goal appears to be maximizing feed efficiency and labor productivity, the cost of these production facilities is large. However, construction of complexes continues, and an additional 12 units are in various stages of design and development.

Although the Soviet hog-complex approach to pork production has not reached the level of productivity attained by the U.S. swine industry, it represents a major thrust forward toward more efficient use of feed and greater labor productivity.

Some judgements of costs can be made from the complex at Kuznetsovsk,[1] about 40 miles from Moscow. Built in 1970 at a cost of about $63.4 million, this facility is reported by Soviet sources to have a projected payback period of 6 years.

Investment in labor resources also is high. A workforce of 360 is required to manage and operate the swine and fertilizer systems at the complex.

Soviet planning officials consider social as well as economic costs in establishing their programs. For example, a consumer study coordinated by the Ministry of Health showed a high level of animal fat consumption. In Moscow food stores, many consumers choose fat pork cuts over lean cuts. Bacon with a high fat content is often preferred to bacon containing more lean meat. In collective markets, fat pork cuts often are priced higher than the leanest cuts.

Since fat represents wasted feed in that an overweight animal has been fed past its point of greatest profitability and highest feed conversion level, many Soviet agricultural officials believe it is imperative from a feed conservation view to reverse this wasteful tendency.

Hence, one goal of the planned pork production programs at the complexes apparently is to convince Soviet consumers of the merits of lean cuts of pork and thereby save substantial amounts of grain by marketing animals at weights that yield the greatest percentage of high-quality lean cuts.

The complex at Kuznetsovsk consists of 19 completely enclosed, air-conditioned buildings; a mill with a capacity of 15 metric tons of feed and 3 tons of premix per hour; storage building for feed; a manure treatment and processing plant; and three artesian wells.

Feed formulas in slurry are fed morning and evening to all animals.

Continued on page 12

[1] **Information on the Kuznetsovsk complex was obtained by U.S. Agricultural Attaches from management of the complex.**

USSR: BASIC DATA ON EIGHT HOG COMPLEXES

Complex[1]	Average litter size	Daily weight increase	Labor per metric ton of feed	Feed conversion ratio[2]	Cost of 1-lb gain
	Head	*Pounds*	*Manhours*	*Pounds*	*Kopeks*[3]
Ilyinogorskiy[4] Goryki Oblast	9.5	1.42	23.0	4.2	32.78
Kuznetsovsk[4] Moscow Oblast	9.4	1.40	23.0	4.3	31.30
Gubkinskiy[4] Belgorod Oblast	9.8	1.35	29.0	4.4	30.20
Vostochnyy[5] Leningrad Oblast	9.1	1.15	33.7	5.1	47.70
Novyy Svet[6] Leningrad Oblast	8.6	1.15	25.1	5.9	34.39
Chistogorskiy[7] Kemerov Oblast	7.0	1.25	30.1	4.3	37.56
Krasnogorskiy[8] Chelyabinsk Oblast	8.8	1.41	36.0	4.5	52.04
Luzinskiy[7] Omsk Oblast	8.7	1.28	28.0	4.2	43.00

[1] Annual capacity of each complex: 108,000 head. [2] Pounds of feed required to attain 1 pound of gain. [3] 100 kopeks=1 ruble. Officially, 1 ruble=US $1.33; unofficially, lower ruble values prevail. [4] In operation about 5 years. [5] In operation about 2.5 years. [6] In operation about 6 years. [7] In operation about 2 years. [8] In operation about 6 months. Source: *Svinovodstvo*, 10/1975.

Kuznetsovsk Hog Complex

Est. 1974 Operating Data

Total pigs raised	124,000
Average number raised per litter	9.4
Number of farrowings	13,191
Total slaughter	114,000
Total pork production (metric tons)	12,000
Average slaughter weight (pounds)	231
Average daily gain (pounds)	1.4
Total days to slaughter weight	165
Feed conversion (pounds of feed per 1 pound of gain)	4.3
Manhours required per ton of feed	23
Total animals as of Jan. 1, 1975	73,000
Total sows as of Jan 1, 1975	5,320

Ending 10-day trip

Butz Sees Need for Expanded Farm Trade

Secretary of Agriculture Earl L. Butz called for a more rapid expansion in world trade in farm products on his return May 2 from a trade mission to 10 countries.

"This would require a major effort to liberalize worldwide trade restrictions," he said. He went on:

After 20 days of conversations with government leaders, including five heads of state, I am more convinced than ever that the world needs to trade more freely in agricultural products. The countries we visited vary widely in their agriculture—from tropical to temperate—from major exporters to large net importers—yet a common denominator is the need to trade.

In New Zealand, I met with Acting Prime Minister Talboys, and with principal ministers there and in Australia. It is apparent that both Australia and New Zealand need greater access to traditional markets in Europe and Asia for their meat, wool, and dairy products. The European Community and Japan have tightened their borders to these products. This is putting severe pressure on farmers in Australia and New Zealand. This leads the two countries to seek larger exports to the United States, especially for beef. We are already the world's largest importer of beef, and there is a real need for other countries to lower their border restrictions on meat.

Malaysia and Indonesia are expanding their palm oil industries rapidly. They need larger and more diversified markets for this oil. At present, the United States is receiving a disproportionate share of world palm oil exports, especially from Malaysia. In our talks in Djakarta and in Kuala Lumpur, we emphasized the need for those countries to diversify their markets, seek new uses for palm oil, and to lessen their rate of expansion in palm oil production. Otherwise, we run the risk of a worldwide depression in vegetable oil prices.

At the same time, we made it clear that the U.S. Government does not want to limit imports of palm oil. We are the world's largest exporter of vegetable oil, particularly soybean oil, and it is not in our best interest to take a restrictive position in world trade. Our interests are quite the reverse.

While in Indonesia, we signed a P.L. 480 Title I Agreement for 100,000 metric tons of wheat and 100,000 metric tons of rice. This agreement will help the Indonesians meet their import requirements for these two commodities while at the same time enabling them to pursue their economic development programs more effectively. In Djakarta, I met with President Suharto, and found him very much committed to agricultural development in his country.

Spain and Portugal are large importers, and their trade problems are quite different from those in the net exporting countries. Both Spain and Portugal have large trade deficits with the United States, and they would like to reduce their deficits. At the same time, they want to continue improving the diets of their people, and this will require substantial imports of farm products, including grains and proteins, to maintain their growing livestock and poultry industries.

Spain is among the top 10 export markets for U.S. farm products, purchasing more than three-quarters of a billion dollars in fiscal 1975 and probably will purchase a like amount in the current year ending June 30. Spain is making a major effort to develop its own agriculture further, and while in Madrid, we talked about the need for greater cooperation in the exchange of agricultural technology.

Portugal takes more than a quarter billion dollars in U.S. farm products annually. While in Lisbon, I met with Prime Minister Azevedo, and we amended the Title I Agreement under which that country had recently purchased 56,400 metric tons of U.S. rice. The amendment will provide $5 million worth of cotton—about 16,000 bales. This assistance will help Portugal as it struggles with very difficult economic and political problems.

In Bulgaria, we were impressed with the dedication of Government leaders to expanded livestock production, especially swine and poultry, but also dairying. In order to accomplish this, it will be necessary for the Bulgarians to import grains and protein supplements. Later this year, a Bulgarian mission will visit the United States to explore future opportunities for cooperation in agriculture. In Sofia, I met with the Chairman of the State Council Todor Zhivkov.

In Greece, we visited the American Farm School at Thessaloníki. This school, founded more than 70 years ago, has made tremendous contributions to agriculture in Greece. That country is now planning 10 additional institutions patterned after the American school.

In Singapore, I met with Prime Minister Lee. Singapore is a small but dynamic market for U.S. farm products. In addition to its position as a commercial crossroad in Asia, it maintains a sizable animal agriculture, particularly swine, within its small area.

". . . I am more convinced than ever that the world needs to trade more freely in agricultural products."

In Geneva, we met with heads of delegations from about 70 countries represented at the multilateral trade negotiations. We talked with them about the need to eliminate nontariff trade barriers. The question is a fundamental one—whether agricultural products are to be traded in a world where the rules are different for them than they are for other products.

The need for trade liberalization in agriculture was a subject that we reviewed in each country we visited. Another major topic was the Commodity Credit Corporation (CCC) export program. In seven of the 10 countries we visited, CCC credits are being used to facilitate additional U.S. exports of commodities, including breeding cattle, feedgrains, wheat, soybeans, and tobacco.

One of the purposes of the trip was to become personally acquainted with the governmental leaders and agricultural leaders of these countries. Once you establish personal relationships, it is easier from then on to work together to develop trade, share technology, smooth out irritations, and promote peace. The trip has helped us to further the future working relationships of the United States with these 10 nations.

OECD Issues Farm Policies Review

By HANS G. HIRSCH
U.S. Agricultural Attaché, U.S. Mission to OECD
Paris

DURING THE PERIOD 1973-75, 25 developed countries[1]—all members of the Organization for Economic Cooperation and Development (OECD)—examined the agricultural policies of individual member countries and of the European Community as a whole in the OECD Working Party on Agricultural Policies. OECD has now issued a "Review of Agricultural Policies—General Survey." Based upon 26 individual reports that were released in 1974/75, the review is an attempt to summarize and bring into perspective the main policy issues confronting governments.

Existing policies analyzed. This genesis of the General Survey implies that it is a description and analysis of existing policies. These policies may not always be in complete harmony with those for whose promotion OECD was set up, namely "to achieve the highest sustainable economic growth and employment and a rising standard of living in member countries, while maintaining financial stability, and thus to contribute to the development of the world economy; to contribute to sound economic expansion in member as well as nonmember countries in the process of economic development; to contribute to the expansion of world trade on a multilateral, nondiscriminatory basis in accordance with international obligations."

The report stresses international interdependence and the interdependence of the agricultural sector with the general economy in each of its 11 chapters. The report warns, however, that "changes in exchange rates imposed with respect to balance of payment reasons as well as a too rigid anti-inflationary policy can severely affect the flow of trade in farm products."

Free market policy versus government interference. The dilemma between a free-market policy and government interference permeates the chapter on International Agricultural Trade. "The main objectives of the net importing countries have been to safeguard the incomes of domestic producers and to maintain essential supplies of agricultural products at relatively stable prices. Such measures often involve trade controls and guaranteed prices.

"The net exporting countries' most important preoccupation has been to obtain better market access for their exports at more stable and remunerative prices; however, these countries also provide protection to domestic producers by means of trade controls for some products."

Market instability is viewed as one of the most crucial problems: "Because excessively fluctuating market prices make it almost impossible to achieve the income goals and hamper the application of selective aid programs, the agricultural adjustment process can be seriously disrupted by market instability." Accordingly, "one of the major policy issues facing the world in relation to trade is the need to find a way of reducing the magnitude and frequency of these supply/demand imbalances of agricultural products."

International commodity agreements. Within the Working Party on Agricultural Policies disagreement was perhaps sharpest on the virtue of international commodity agreements. The dissidents finally concurred with this statement: "Some members of OECD feel that multilateral trade agreements are one of the most potentially effective methods of reducing the problems of world agricultural trade. However, all the above-mentioned agreements have experienced problems and, in 1974, all had been either discontinued or survived only in a less effective form.

"That is, the International Wheat Agreement operated only as a mechanism for consultations on wheat trade; the International Coffee Agreement no longer covered price objectives and quota levels; the International Cocoa Agreement had had severe difficulties due to the fact that world prices stood at about double the price range covered under the agreement; and the International Sugar Agreement, which has worked quite effectively for a number of years, failed to agree on price objectives and quota levels when it was renewed in late 1973.

"A further difficulty has been the failure of these agreements to cover a sufficiently large proportion of world trade, leading to problems with those countries that are not included. Although multilateral commodity agreements would appear to offer a means of rationalizing and improving the stability of world agricultural trade, the experience of recent years suggests that some rethinking of this approach is necessary."

Price intervention. The report realistically observes that "price intervention through public action is generally coupled with other measures such as frontier protection." Such intervention may outweigh expenditures for structural improvement, investment, and rural development. Yet program expenditures should always be seen in relation to its effects. Rational stocktaking of what countries really do with respect to subsidies for agriculture is thus a first step towards solutions.

Policy objectives formulated. The report optimistically asserts that member countries in general follow economic and social policies aimed at assuring balanced economic growth, economic and social justice, satisfactory income and employment levels, and harmonious trade expansion. Allocation and shifts of resources are expected to result largely from the market mechanism. Public intervention aims at facilitating the achievement of basic policy objectives.

However, "the view of agriculture within the context of the total economy varies between countries or groups of countries. It depends on the relative importance of agriculture and the agricultural population; a further element relates to a country's position as exporter or importer of agricultural goods. These and other factors, such as structural conditions, explain to a certain extent the differing approaches to agricultural problems in many European countries and Japan, compared to North America and Oceania."

In analyzing agricultural policy formulation in this manner, the report makes the one point of basic criticism that found universal acceptance by the Working Party: "Agricultural policies are called upon to guide the developments in the

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[1] **Australia, Austria, Belgium, Canada, Denmark, Finland, France, the Federal Republic of Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States. Yugoslavia participates in certain activities, including those of the Committee for Agriculture.**

Despite drop in production

Morocco Seeks Sugar Self-Sufficiency by 1985

By ALVIN E. GILBERT
Former U.S. Agricultural Attaché
and VINCENT BIOLLEY
Office of U.S. Agricultural Attaché
Rabat

MOROCCANS, AMONG the world's largest per capita consumers of sugar, hope to reach self-sufficiency in output by 1985, but there are some roadblocks to be overcome to achieve the goal.

In 1975, Morocco imported about 260,000 tons of sugar to meet consumption needs of 505,000 tons, and will probably import 200,000-300,000 tons yearly at least for the next 3 or 4 years.

Production has been on a general uptrend and reached a record of 265,000 tons in 1974. But in 1975, sugar planting was delayed and there was a long, damaging, dry spell at the beginning of the crop year.

A substantial producer price increase was the major tool used in 1975 to try to boost outturn but the promise of higher incomes failed to overcome the effects of dry weather.

But even perfect weather could not have compensated for the need for more land under irrigation and improved cultural practices. Also required is a shift in land use from other crops to sugarcane or sugarbeets.

Morocco's policy to reduce dependence on imported sugar dates from the early sixties. The first recorded sugarbeet crop was grown in 1963 and the first sugar mill was completed in the same year. This mill and the seven that followed were joint ventures with the Government holding at least 50 percent of the shares and private investors the balance. The Government will probably continue to be the chief shareholder in all of Morocco's new mills, despite an organized program during 1974 to sell shares to sugarbeet and cane producers and to cooperatives. It is doubtful that this program developed many buyers since farmers are relatively uninterested in growing sugarbeets.

The 1975 dry period's effects were particularly noticeable at the end of the season since they delayed the harvesting of the cane and beet crops and caused some damage to plants on the 67,000 hectare planted area. Sugarbeet output has been preliminarily estimated at 1.79 million tons in 1975, compared with 1.94 million tons in 1974.

The 1974 crop had also matured later than usual because of dry weather, but beet production was about 500,000 tons greater than the 1973 outturn. The apparent juice yield was lower than during the previous 2 years and the 1974 sugar outturn, while setting a record, was lower than it might have been.

Yields in 1973 ranged from 26 tons per hectare in the lower Moulouya area to 49 tons in the Tadia region.

After centuries of being ignored, sugarcane growing is now being revitalized and its production has reached the multiplication stage. Some 2,000 hectares have reportedly been planted in the Gharb Plain, in addition to other acreages in the Moulouya region, bringing the country's total to 4,600 hectares in 1975. The rate of planned sugarcare area expansion is 1,500 hectares a year. In January 1976, frost caused heavy losses to newly planted sugarcane in the Gharb Plain but plantations in the Moulouya area were spared.

A majority of the sugar consumed in Morocco is used in sugared mint tea, the most important source of calories for many Moroccans. Per capita consumption is often as high as 28 or 30 kilograms a year, although this figure probably varies as incomes rise and fall from year to year. This high usage is one of the reasons why the Government has been seeking to reach self-sufficiency in sugar since the early 1960's, and especially in more recent years as imported sugar prices have advanced.

Workers in a Moroccan sugarcane field. Sugarcane growing is being revitalized in Morocco.

Morocco's sugar consumption has risen steadily from 450,000 tons in 1972 to the 1975 level of 505,000 tons. The growth rate between 1974 and 1975 was below the annual norm with lower incomes and generally unfavorable economic conditions.

At present there are nine modern sugar mills in Morocco, three of which also have refining facilities for their own sugar outturn. The last one went into operation in May 1975 at Mechra bel Ksrir in the Gharb. It has a 450,000-ton-per-year crushing capacity and a sugar output of 45,000-50,000 tons annually. Another unit, put into operation earlier in the lower Moulouya, is said to have been processing cane since 1973/74.

In addition to three mills that do their own refining, there are also three

Mr. Gilbert is now U.S. Agricultural Attache at Islamabad.

plants that do refining exclusively, two at Casablanca and one at Tetouan. There total capacity is 428,000 tons of refined sugar a year.

Sugar mill construction was held back in 1975 because the crushing capacity of Morocco's mills is already greater than that required by present sugarbeet and sugarcane outturn. The single mill that opened in mid-1975 was the only one originally scheduled for construction during Morocco's current 5-year Plan (1973-77).

However, high world sugar prices placed pressure on Morocco's self-sufficiency plans. Announcement was made in late 1974 that Morocco would start construction of six new mills by 1977. Realizing that water behind existing dams would go further if "fitting out" of irrigation perimeters kept pace with dam building. Morocco's King Hassan II announced at that time that the same international firms that are to build the six dams should set up the irrigation facilities.

Another eight mills are scheduled for construction in the Loukkos region. The last of these is earmarked for completion by 1987, the year by which Morocco hopes to become an exporter of sugar.

These eight mills are to be supplied with sugarbeets and sugarcane grown on the 100,000 hectares that will be irrigated with water from the M'Jara Dam, to be built on the upper Ouergha River. Said to be the largest dam to be erected in Morocco, it was originally scheduled for completion in 1984, although the date has reportedly been moved up. But, if sugar prices again fall sufficiently in the immediate future to make dam-building less vital to the welfare of the country, the building schedule may again be stretched out.

Some sugarbeets are planted in non-irrigated areas—especially in the Gharb region—but yields from plants grown under such conditions in no way compare with plantings on equal acreages of watered lands. There is also a dilemma regarding land use. Because of the relative scarcity of available land for irrigation, and the restrictions imposed by crop rotation, there is strong competition between the various industrial crops such as cotton, sugarbeets, and sunflowers. Even on nonirrigated lands, sugarbeets and sugarcane must compete with other annual crops whose profitability is increasing yearly.

The guaranteed producer price for sugarbeets rose from $19 per ton in 1973/74 to $24 in 1975, a boost of 26 percent. Simultaneously the sugarcane price was raised from $14.75 in 1974 to $16.25 in 1975. This was the third such increase in as many years, but the sugar industry is still producing fewer beets than desired, apparently because many farmers have little interest in growing beets. Beets generally have low yields and income is often better from production of other crops.

The subsidized consumer price of sugar is maintained at around 20 cents per pound. But the Government imports sugar at a considerably higher price.

King Hassan had estimated the cost of imported sugar for 1975 at the equivalent of $300 million.

In calendar 1975, Morocco imported 267,325 tons of sugar, compared with 286,494 tons a year earlier. In 1974, the Dominican Republic was in No. 1 spot as a supplier, shipping 77,725 tons, replacing Brazil whose shipments totaled 68,922 tons. Cuba was the third supplier in 1973 and 1974, supplying 60,832 in 1974. In 1975, Cuba became the ranking supplier, followed by the Philippines and Dominican Republic. Morocco also broadened its supply base by purchasing sugar from Thailand and Taiwan.

Australia's Raisin And Sultana Crops Seen Larger Than Those of 1975

Australia's production of dried vine fruits during the 1975 season totaled 65,838 metric tons—55,246 tons of sultanas, 4,252 tons of raisins, and 6,340 tons of currants, the U.S. Agricultural Attaché in Canberra reports.

These quantities are somewhat less than first expected because of lower than anticipated yields and increased shipments to wineries. However, the quality of the crop was excellent.

The outlook for the 1976 season is for a somewhat larger pack, although well below the levels of the early 1970's. Sultana production is expected to reach about 65,000 tons and that of raisins about 4,600 tons. The currant crop, which was damaged by adverse growing conditions, is expected to total only about 3,800 tons.

As a result of the relatively small dried vine fruit packs in 1975, exports during the 1975 marketing year again were at low levels. Exports of sultanas totaled 40,348 tons, of which 12,225 tons went to the United Kingdom. Canada and West Germany were the other major markets. Exports of lexia raisins totaled 884 tons, and currants, 1,843 tons.

The outlook for the 1976 marketing years is for sultana exports of about 50,000 tons, of which about 16,500 will be available for shipment to the United Kingdom and about 12,000 tons to Canada. Raisin exports probably will total about 1,300 tons—mainly to Canada and New Zealand—but virtually no currants will be available for export.

Australia's dried tree fruit production during the 1976 season is expected to show recovery in dried prune outturns and a further decline in output of dried apricots.

Prices for dried vine fruits and dried tree fruits have shown sharp declines on world markets during the past year. Although dried vine fruit producing nations last year agreed to maintain the 1974 prices reached by the International Sultana Agreement, pressure of supplies in the Northern Hemisphere countries made this impossible.

In line with lower quotations for Turkish and Greek fruit, Australia reduced prices as the year progressed, and in March the f.o.b. price was about $A125 below the opening price of $A600 per ton. Prices for dried tree fruit also were reduced substantially during the year, particularly for pears and apricots.

The Government has agreed to extend, on an interim basis, the dried vine fruits stabilization plan for another year, and 1975 production consequently will be covered by the same minimum price guarantees that have been in effect during the past 5 years. Because of lower prices in export markets, it is likely that the Government will have to support the pool by up to $A1.6 million.

Hong Kong Import Trends: More Rice, Less Wheat

Hong Kong imported more rice and less wheat in 1975 than in 1974—market trends that are likely to continue this year.

U.S. wheat accounted for about 75 percent of Hong Kong's total 1975 wheat imports of 104,000 tons, while U.S. rice imports were a small 2.4 percent of the estimated total 350,000 tons of rice consumed in Hong Kong last year.

Dwindling output of wheat flour by one of the three major flour mills in Hong Kong caused total wheat imports to decline from about 155,000 tons in 1968 to last year's level.

Hong Kong's imports in 1976 of U.S. wheat are expected to remain near the 1975 level of 77,425 tons, but wheat imports from Canada and Australia have been declining since 1971 and may continue to shrink in 1976.

A steady influx of immigrants from the People's Republic of China and southeast Asia continues to swell Hong Kong's population. Legal immigrants totaled 36,000 in 1975, pushing the total population to 4.5 million.

Despite this expanding population, demand for wheat products remains stagnant. Higher prices for bakery products were blamed in 1974 and slow growth (about 1 percent) of real income impeded sales in 1975.

The value of Hong Kong's wheat imports declined from a record $29.4 million in 1974 to $21.7 million in 1975, partly because of declining prices. Imports of wheat flour reached a peak value of $6.8 million in 1975—up from $6.2 million in 1974—and the quantity imported increased from 22,869 tons to 27,418 tons.

However, this was only half the record 59,477 tons imported in 1962. Japan supplied 79 percent of Hong Kong's wheat flour imports in 1975 and the United States about 4 percent.

Hong Kong imports almost as much cornmeal and rice flour as wheat flour. South Africa, the Philippines, and Argentina are important suppliers of corn meal. The People's Republic of China (PRC) and Thailand supply most of the rice flour.

The average price for rice imported by Hong Kong declined from $546 per metric ton in 1974 to $383 per ton in 1975, and total rice imports increased from 314,706 tons to about 350,000 tons.

Further gains in rice imports are expected in 1976 as consumers respond to price reductions and stocks are rebuilt while prices are attractive. Some studies indicate that consumer demand for rice in Hong Kong increased by about 0.4 percent for each 1 percent decline in rice prices during the 1960's.

However, the price elasticity for rice in Hong Kong is now probably only half that level. Per capita income is higher, and the diet has become more diversified. Use of cereals has declined as consumption of meat and vegetables has increased.

Hong Kong's imports of rice from the PRC increased from 153,843 tons in 1974 to 184,087 tons in 1975, but value declined from $90.8 million to $72.2 million. Imports of Thai rice declined from a record 248,027 tons in 1972 to 103,576 tons in 1973, but moved up to 120,316 tons in 1975.

Imports of U.S. rice hit a record 62,706 tons in 1973, when some of the 38 private import firms found their stocks were falling below levels required by Government regulations and purchased U.S. rice when Asian rice was unavailable. As supplies in the PRC and Thailand increased, Hong Kong importers switched back to these suppliers. Imports of U.S. rice in 1976 are likely to remain at or near the 3,500-ton level recorded in 1975.

—JOHN B. PARKER, JR., ERS

World Production Of Cottonseed Oil Down 14 Percent

World production of cottonseed oil in 1976 is now estimated at 2.8 million metric tons and that of meal at 8.2 million—down 3 percent from earlier estimates and 14 percent below 1975's revised production figures of 3.3 million tons for oil and 9.5 million tons for meal. The slump in production reflects worldwide reduction in cottonseed availability, resulting from smaller cotton harvests last year.

Following an estimated record of 425,000 tons in 1975, world exports of cottonseed and oil, oil basis, are expected to fall sharply in 1976 to approximately 360,000 tons, reflecting lower export availabilities and sluggish demand.

U.S. shipments, which made up 70 percent of 1975's world total, are expected to decline in 1976.

World exports of cottonseed and meal, meal basis, are forecast at 850,000 tons, compared with 1975's estimated trade volume of 900,000 tons. Reduced meal exports from Turkey, the Sudan, and Brazil will be only partially offset by exports from India.

The drawdown in oilseed stocks together with continued abundant supplies of vegetable oils is expected to put upward pressure on meal prices, and this with increased supply prospects for grain could widen the soybean meal/corn price ratio.

Smaller Output of Oilseed Meals and Fish Meal Seen

World production of the major oilseed meals and fish meal in 1977, based largely on expected 1976 crop harvests, is projected at 68.5 million metric tons, soybean meal equivalent, or 1.4 million tons below this year's indicated volume. This reflects indications of a 3.2 million ton decline in U.S. production based on anticipated reduced soybean plantings and assumed trendline yields. Every bushel deviation from trend in U.S. soybean yields would change world production of meal by about 1 million tons. The final outcome of U.S. meal production could vary by 1.5 million tons from the projected volume.

However, adding the indicated U.S. carrying stocks of soybeans and meal world availabilities of meal in 1977 are projected at 75.0 million tons or 800,000 tons above the 1976 volume. Since the consumption of meal can be expected to go up by approximately a trendline volume of 2.4 million tons, stocks held principally as seed in the producer-exporter countries would likely be drawn down by roughly 1.6 million tons—the equivalent of about 75 million bushels of soybeans.

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Soviet Pork

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Antibiotics are fed in all the fattening rations, but are withdrawn 8 days prior to slaughter.

Sows, after weaning a litter, are placed in groups of 44, where they are induced into heat and bred artificially. Technicians claim an 80 percent conception rate on the first attempt.

The sows are then subdivided into groups of 11-13 for observation over 32 days. For the gestation period, they are transferred back into groups of 33 for 80 days, after which they are moved to individual stalls in preparation for farrowing.

Pigs are weaned at 26 days and are started on special rations. Upon attaining 38 kilos (83.6 pounds), the feeder pigs are placed in groups of 25, where they remain until the slaughter weight of 105 kilos (231 pounds) is reached. They are then transported to another location for slaughter and processing.

To facilitate manure collection, all animals are fed on slatted floors. With the aid of underground channels, manure is transported to a nearby treatment and processing plant where the slurry is separated and dried for use as fertilizer. The liquid portion is further treated and is also applied to crop land.

OECD Committee

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agricultural sector, but in many cases these policies only react to trends and situations which arise. In doing so, governments have frequently given priority to solving problems domestically and have tended to protect domestic producers and, in some instances also consumers from developments in international markets."

Yet, under the heading Rural Development and Agricultural Adjustment Policies, the report observes that some countries with structural problems have initiated forward-looking, comprehensive adjustment programs that include all necessary elements discussed and act in a coordinated way on the factors considered essential, namely land, labor, capital flow, regional adjustment, and possibly others.

Other aspects. Considering the preeminence of trade problems in an international setting, this article has concentrated on that theme. However, the report has separate topical chapters on The State of Agriculture, Consumption and Markets, Production, Incomes, Farm Structures and Efficiency, and Rural Development and Environment. It does not lend itself to speed-reading. Upon superficial reading, the study creates the impression of a collection of carefully hedged platitudes to accommodate all member countries' views. Only reflective reading will lead to an appreciation of how OECD as an entity and an institution helps its members not only to understand but to educate each other—*"Review of Agricultural Policies,"* OECD, Paris, 1975 ($6.00). Available from the OECD Publications Center, 1750 Pennsylvania Avenue N.W., Washington, D.C. 20006.

CCC Sets $135.5 Million Worth of Export Credits

The Commodity Credit Corporation in the latter part of February and in early March extended $135.5 million worth of credits covering export of U.S. agricultural commodities to five countries and extended the validity period for an existing credit previously set for another country.

A $45 million line of credit was sponsored for Greece to finance export of U.S. corn ($40 million) and barley ($5 million).

A $40 million line of credit was extended to Thailand for financing purchases of U.S. tobacco.

A $38.5 million credit went to Yugoslavia to finance U.S. export sales of soybeans, soybean oil, soybean meal, and edible soy proteins.

A $5 million credit to finance export sales of U.S. rice was set up for Poland.

Lines of credit were extended for importation by Cyprus of $4 million worth of U.S. barley, $1 million worth of U.S. wheat, and $2 million worth of corn and/or sorghum.

The validity period for a previously authorized $30 million credit to Morocco for purchase of U.S. wheat was extended from June 30 through December 31.

*U.S. GOVERNMENT PRINTING OFFICE:1976 211-407/45 1-3